



WHAT IS CLAIMED IS:

1. A secure system for stationary electronic voting comprising  
an intelligent voting machine  
5 one or more trusted servers with associated storage devices  
means for secure wired or wireless communication between the intelligent voting machine  
and the trusted servers/storage  
means for locating the intelligent voting machines in the polling booths at the polling  
stations  
10 means for connecting one or more intelligent voting machines to the local trusted server  
means for connecting the trusted local server/storage to other trusted servers located away  
from the polling station by secure communication links.
2. An intelligent voting machine comprising  
15 a touch screen enabled input/output and display  
means for a built in processor  
means for internal hard disk storage  
means for removable memory storage  
means for activation of the voting machine by card activation method and or  
20 means for activation of the voting machine by other methods  
a built-in or external secure printer  
means for secure communication between the intelligent voting machine and the secure  
printer  
means for initiating and terminating the print action  
25 means for obtaining a secure print out of the ballot cast by the voter  
means for the secure print out being an true representation of the ballot cast by the voter  
means for time stamping of the print out and or identification of the voter by voter  
registration number or other methods

means for the secure printer to provide an alert on failure by the voter to take the print out  
30 means for the secure destruction of the print out of the previous voter, in the event the print out is not taken;

means for shielding the print out of one voter from being seen or taken by the next voter  
means for a secure wired or wireless connection between the intelligent voting machine and one or more trusted servers including a local, central and or network servers  
35 means for leveraging the processing power of the intelligent voting machine by itself and or in conjunction with the processing power of the trusted servers.

3. A secure system for electronic voting comprising  
a mobile communication device  
40 one or more trusted servers with associated storage devices  
means for dynamically configuring the mobile device as a mobile voting machine  
means for secure wired or wireless communication between the mobile voting machine and the trusted servers/storage  
means for dynamic reconfiguration of the mobile device in a stand alone manner and or in conjunction with the trusted servers  
45 means for enabling the mobile voting machine features and functionality by leveraging the processing power of the mobile device by itself and or in conjunction with the processing power and databases of the trusted local, central and or network servers.

50 4. A mobile voting machine/mobile device comprising  
a touch screen for input/output and display,  
a keyboard,  
a speaker and microphone  
processing/storage capability resident within the mobile device  
55 means for communication by wired or wireless methods of voice and data

means for emulating the functions/features of the mobile voting machine by internal reconfiguration and or;  
means for reconfiguration of the mobile device as a mobile voting machine in conjunction with the trusted local, central and or network server.

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5. A secure system for mobile electronic voting of claim 3 comprising  
means for the mobile device to be uniquely identified by one or more methods such as by IPv6 identification number, EIN number, telephone number and other methods; and or  
means for the utilization of legally approved voter profile for authentication purposes,  
65 means for authentication of the voter by comparison of the data in the databases/lookup tables resident one or more trusted servers and or comparison in conjunction with the data bases/lookup tables resident on the mobile device/mobile voting machine itself;  
means for online registration with a trusted election server of the mobile device/mobile voting machine by device identification method and or  
70 means for online registration of the individual as a voter/voter profile  
means for the voter profile to indicate party affiliation and or independent status  
means for the eligibility to be determined by the registrar of voters  
means for a unique electronic key to be assigned by the trusted election server to the mobile voting machine and or the eligible voter  
75 means for the electronic key to be valid for a designated time period  
means for the electronic key to be activated at the precise local date and time of the precinct/election zone at the start of the absentee voting period and  
means for the electronic voting key to be deactivated at the precise date and local time of the precinct/election zone at the conclusion of the absentee voting period and or  
80 means for the activation of the electronic voting key at the precise time and date of the precinct/election zone when the polls officially open  
means for the expiration of the electronic key at the precise date and local time of the precinct/election zone when the polls close.

85        6. A secure system for mobile electronic voting of claim 5 comprising  
means for location determination of the mobile device/mobile voting machine by trusted  
GPS server means  
means of wired or wireless communication with the GPS server and trusted servers;  
means for the precise determination of the physical location of the voter/mobile  
90        device/mobile voting machine  
means for determination of the eligibility based on presumed location of the voter in  
conjunction with the designated/approved mobile device/mobile voting machine;  
means for enabling/disabling the mobile electronic voting privileges;  
or including the  
95        means for enabling/disabling of the mobile device/mobile voting machine based on  
presumed physical location and the relationship of the presumed physical location to the  
designated voting precinct location.

100        7. A secure system for mobile electronic voting of claim 5 comprising  
means for the time determination of the mobile device/mobile voting machine by trusted  
time keeping server means  
means of wired or wireless communication with the trusted time keeping server and other  
trusted servers;  
means for the precise determination of the physical location and time of the voter/mobile  
105        device/mobile voting machine  
means for determination of the eligibility of the voter in conjunction with the  
designated/approved mobile device/mobile voting machine based on presumed location and  
time,  
means for enabling/disabling the mobile electronic key and the voting privileges by time  
110        based factors;  
including the

means for enabling/disabling of the mobile device/mobile voting machine based on the time at presumed physical location and the relationship of the time at presumed physical location to the time at the designated voting precinct location.

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8. A secure system for mobile electronic voting of claim 5 comprising
  - means for precinct level time stamping the mobile electronic voting by the voter
  - means for time stamping based on physical location time of the voter/mobile device/mobile voting machine.

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9. A secure system for mobile electronic voting of claim 5 comprising
  - means for precinct level location stamping of the mobile electronic voting by the a trusted server and or
  - means for location stamping based on physical location time of the voter/mobile device/mobile voting machine by a trusted server and or
  - means for voter identity stamping by a trusted server.

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10. A secure system for mobile electronic voting of claim 5 comprising
  - means for precinct level location stamping of the mobile electronic voting by the a trusted server and or
  - means for location stamping based on physical location time of the voter/mobile device/mobile voting machine by a trusted server and or
  - means for voter identity stamping by a trusted server
  - means for acquiring the ballot data displayed on the touch screen of the mobile device/mobile voting machine frame by frame or all of the frames for print out and storage purposes;
  - means for the real time provision of an electronic validated receipt by the trusted election server,

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means for enabling a print out and or storage of the actual ballot cast by the voter in conjunction with the trusted official election server and the processing/storage capabilities of the mobile device/mobile voting machine.

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11. A secure system for mobile electronic voting of claim 5 comprising
  - means for high speed wired or wireless communication between the mobile voting machine and one or more of the trusted servers,
  - means for encrypted and secure communication of voting actions and voting data.

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12. A secure electronic voting system comprising

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a separate and distinct sub system consisting of intelligent voting machines located at the polling stations  
means for high speed wired or wireless communication between the intelligent voting machine and one or more trusted local, central and or network servers,  
means for using the processing power/databases of the intelligent voting machine by itself and or in conjunction with the processing power/databases of the trusted local, central and or network servers;

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a separate and distinct sub system consisting of mobile device/mobile voting machines for voting from any location  
means for high speed wired or wireless communication between the mobile device/mobile voting machine and one or more trusted local, central and or network servers,  
means for using the processing power/databases of the mobile device/mobile voting machine by itself and or in conjunction with the processing power/databases of the trusted local, central and or network servers;

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means for use by the authorized election body of the two separate and distinct sub systems,  
namely the intelligent voting machines system and or the mobile voting machine  
170 system in a standalone manner and or in combination while maintaining the  
confidentiality of the ballot by dynamically decoupling voter ID relationship to the  
ballot cast upon initiation of the selections process and cast ballot function

means for the delivery of uniform, timely, secure and convenient voting services to the  
175 voters in accordance with the local, state and federal laws governing each  
elections.

13. A secure electronic voting system of claim 12 comprising  
means for eliminating the disparities inherent in the prior art methods relative to  
180 information, time and machine technology differences  
means for leveling the playing field among the absentee ballot voters, the voters  
that use the polling stations and the mobile device/mobile voting machine enabled  
voters.

185 14. A secure system for electronic voting of claim 12 comprising

means for authentication of the voter by the intelligent voting machine or the mobile  
device/mobile voting machine

190 means for executing one or more authentication tasks in a stand alone manner by utilizing  
the processing power/databases of the intelligent voting machine/mobile voting  
machine and or in conjunction with the processing power/databases of one or more  
of the trusted local, central and or network servers;

195 means for using one or more levels of authentication of the voter as appropriate for the intelligent voting machine or the mobile device/mobile voting machine

means for authentication by photographic method, drivers license, passport, birth certificate,  
social security number, identity card number, video, audio, voice print, finger print,  
200 digital signature, hand writing recognition, signature recognition, voting machine  
ID number and other methods;

means for using one or more identification methods for determining voter and or voting  
machine identity singly and or in selected combination as appropriate for each sub  
205 system, in conformance with the election laws.

15. A secure system for electronic voting of claim 12 comprising

means for enabling real time access to approved and trusted information before and  
210 or during the activity of casting the ballot by means of the intelligent voting  
machine or the mobile device/mobile voting machine,

means for providing the authorized real time information to the voting machine by secure  
wired or wireless communication with a trusted local, central and or network server;

215 means for the appropriate information to be displayed or presented on the desired device  
using the desired interface at the desired time

means for the voter to view the information in one or more windows for comparison and  
220 decision analysis on candidates and the issues

means for the information to include candidate profiles, photos, video, audio, and positions on the issues and other information

225 means for the selection of the desired input/output and display method on the intelligent voting machine or the mobile device/ mobile voting machine

means for the information request/delivery, the ballot selections, actuations, and casting of the ballot by full function keyboard, partial function keyboard, special function keyboard, macro functions, touch screen, voice, audio, sound, text, image, photo, symbol driven, object driven, icon driven, Braille and other methods;

230 means for configuring the intelligent voting machine or the mobile device/mobile voting machine interface, input, output and display functions in a standalone manner by using the processing power/databases of the voting machine by itself and or in conjunction with the trusted local, central and or network servers

means for informed real time decision, selection and casting of the ballot by the voter at the desired time and using the desired voting machine.

240 16. A secure system for electronic voting of claim 15 comprising

means for disabled voters to select the desired input/output/display interface that is of assistance to overcome the disability

245 means for the disabled voter to be adequately informed  
means for the disabled voter to cast the ballot in the desired manner and at the desired time

means for the disabled voter to receive a receipt and true confirming information about the  
250 ballot as cast in the manner that is most useful to the disabled or non disabled voter.

17. A secure system for electronic voting of claim 15 and 16 comprising

255 means for real time text to speech and speech to text conversion  
means for voice input and output in one or more languages  
means for language translation of the text and speech from and to one or more languages;

260 means for the appropriate text to speech, speech to text and language translations/conversions by using the processing power/databases of the intelligent voting machine or the mobile voting machine by itself and or in conjunction with the processing power/databases resident on the trusted local, central and or network servers.

265 means for ballot selection and casting of the ballot in one or more languages.

18. A secure system for electronic voting of claim 12 and 15 comprising

270 means for a trusted second individual to assist the first individual who is an eligible voter  
means for validating the eligibility of the first individual and provisionally enabling the first individual

275 means for the acquisition of the identity and signature of the second individual in a touch screen window or by other input and authentication means in conjunction with the selected voting machine and or the trusted local, central and or network server

280 means for the authentication and approval of the second individual to act in a fiduciary capacity with specific power of attorney privileges for the first individual voter  
means for the second individual to determine the ballot choices of the first individual by the appropriate methods  
means for the second individual to cast the ballot as a proxy for the first individual;  
and or

285 means for a third individual and or additional witnesses to be authenticated and approved by trusted servers to act as a witness  
means for witnessing and authenticating by one or more witnesses to ensure that the second individual is performing the actions intended by the first individual voter.

290 19. A secure system for electronic voting of claim 18 comprising  
means for the second individual to remotely perform the actions desired by the first individual using a stationary or mobile device  
means for the first individual to remotely monitor and review by appropriate and desired interface, input and output method, the actions of the second individual;  
means for the first individual and the third individual acting as a witness, to remotely monitor and review by appropriate choice of the desired interface, input and output means the real time actions of the second individual;  
means for wired or wireless connectivity and collaboration between the first individual, second individual, third individual and other individuals, the stationary devices in use, the intelligent voting machines in use, the mobile device/mobile voting machine in use and the trusted servers

means for remote, contemporaneous, at a designated time or delayed collaboration by  
leveraging the processing power of the communication devices, voting machines  
and the servers acting alone and or in conjunction.

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20. A secure system for electronic voting of claim 12 and 15 comprising  
means for tracking the actions of the specific voter and the voting machines used by the  
voter in real time

310 means for detecting the actions of multiple voting by the same individual on behalf of the  
voter and or on behalf of other voters

means for locking out a particular voter or the particular intelligent voting machine or the  
mobile device/mobile voting machine from accessing the trusted election servers

means for fraud detection, determining fraud trends, isolating fraud prone machines,  
fraud prone precincts and providing alerts in real time for action by law  
enforcement authorities

315 means for providing a trail of the fraudulent activity for review and correction of any  
voting discrepancies by election body and judicial officials.

320 21. A secure system for electronic voting of claim 12 comprising  
means for providing one or more layers of security for conducting elections in a fair and  
transparent manner

means for locking in the desired functionality and locking out the undesired functionality of  
the trusted election servers by a function-lock and time-lock feature

325 means for automatically initiating the function-lock and time-lock features at the desired  
time on one or more of the selected secure and trusted servers and terminating the  
function-lock or time-lock automatically after a set time period duration or at a set  
time

means for limiting the access, alteration of the functions and other features during the  
330 function-lock and time-lock sequence

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means for override of the function-lock and the time-lock features by authorized override procedure obtained by judicial orders or other official directives  
means for the prevention of premature release of the polling data and the coordinated release of certified results at the desired locations, at the desired time and in the desired sequence.

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22. A secure system for electronic voting of claim 12 comprising means for validating and certifying the election results by an escrow server and by the designated chief election official such as the secretary of state  
means for providing accurate, timely and final certified results to the public soon after the polls close by leveraging the computational capabilities of one or more trusted servers acting in a standalone manner and or in conjunction with each other.

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23. A secure system for electronic voting of claim 12 comprising means for configuring a hierarchy of trusted election servers with one or more servers connected by a secure communication path and one or more servers connected by a plurality of secure communication paths;

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means for locating the trusted election servers in one or more geographically separated locations  
means for the trusted servers to be under the supervision of election authorities, bi-partisan commissions, neutral bodies and other un-impeachable organizations  
means for achieving redundancy in real time storage of the election data at each level such as the intelligent voting machines, the mobile voting machines, the precinct level servers by enabling dynamic sweep of the data from each voting machine and the servers for remote and secure storage

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means for defining the sweep nodes, the sweep periodicity from each node and the sweep duration

means for randomly transferring the data on randomly selected redundant communication lines to limit intrusion and achieve a high level of data integrity and security.

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24. A secure system for electronic voting of claim 12 comprising  
means for dynamically configuring the features of the intelligent voting machine for new  
functions and new elections by software communication and download/upload of  
the functional instructions and content from a trusted local server, central server,  
and or a network server

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means for dynamically configuring the features of the mobile voting machine for new  
functions and new elections by software communication and download/upload of  
the functional instructions and content from a trusted local server, central server,  
and or a network server

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means for the mobile communication device/mobile voting machine to be dynamically  
configured with the approved functional instructions at the designated time and for  
the designated elections using the processing power of the mobile device by itself  
and or in conjunction with a local, central and or network server.

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25. A secure system for electronic voting of claim 12 comprising  
means for the mobile electorate such as disabled individuals, students, business travelers,  
military personnel and others to participate in elections with ease  
means for enabling a single mobile device for communication, computation, control,  
command and for electronic voting functions.

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26. A secure system for electronic voting of claim 12 and 25 comprising  
means for electronic voting in corporate governance matters and share holder matters  
means for conducting the voting in conjunction with trusted servers maintained by third  
parties

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27. A secure system for electronic voting of claim 12 and 25 comprising  
means for using the mobile device for auction and other transactions  
means for the auction to be conducted without fraud and in a fair and equitable manner in  
conjunction with a trusted third party server

390 means for authentication of the parties to the auction by a trusted third party server  
means for execution and compliance to the terms by the parties to the transaction by  
escrow server means.

28. A secure system for electronic voting of claim 12 and 25 comprising  
means for using the mobile device for opinion surveys  
means for the opinion survey to be conducted without fraud and in a fair and equitable  
manner in conjunction with a trusted third party server  
means for authentication of the parties to the opinion survey by a trusted third party server  
means for computation and analysis of the results by escrow server means

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